# ABSTRACT

An application watchdog, comprising a dedicated watchdog counter in the hardware layer and a watchdog driver operating in the kernel mode layer of the computer operating system. The driver comprises a system thread configured to monitor a plurality of designated user applications operating in the user mode of the operating system and a message passing interface for receiving periodic signals from each of the user applications. The driver also uses an interface for transmitting timer reset commands to the dedicated watchdog counter. If the system thread receives a message from each of the designated user applications within an allotted period of time, the watchdog driver sends a timer reset command to the dedicated watchdog counter. Otherwise, the dedicated watchdog counter fails to receive the reset command and subsequently issues a system reset command. Early warning signals may be issued prior to system reset to alert system management.